

**molex**  
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M Garcia Congosto  
European Patent Office  
D-80298 Munich  
Germany

Re: **Agent's Ref. A1-231 PCT**  
**International Application No. PCT/US03/39595**  
**International Filing Date: 11 December 2002**  
**Priority Date: 20 December 2003**  
**Molex Incorporated**  
**CONNECTOR WITH HEAT DISSIPATING FEATURES**

**AMENDMENTS TO CLAIMS UNDER PCT ARTICLE 34**

Dear M Garcia Congosto:

Attached please find substitute sheets 12-14, which replace original sheets 12-15, which contain applicants Amendments to Claims under PCT Article 34. These amendments are as follows:

1. Original claim 1 has been amended to include the subject matter originally included in claim 2.
2. Original claim 2 has been cancelled, without prejudice.
3. The remaining claims have been renumbered, including their dependencies, as a result of the cancellation of claim 2.

A favorable IPER is requested.

Respectfully submitted,

MOLEX INCORPORATED



Robert J. Zeidler  
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Attachment

**DOCKETED**

DEC 28 2004

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**LEGAL DEPT.**

CLAIMS:

1. A connector comprising:  
a housing including a first housing base wall and a second housing base wall connected to said first housing base wall and spaced therefrom, a plurality of ribs extending from said housing and spaced apart from each other such that a slot is defined between adjacent ribs, each said rib includes a first rib portion and a second rib portion extending from each said housing base wall, each said first rib portion extending from said respective housing base wall in a first direction such that each said slot has a first slot portion, and each said second rib portion extending from said respective housing base wall in a second, opposite direction, such that each said slot has a second slot portion; and  
at least one terminal positioned within each said slot and connected to said housing such that a surface area of each said terminal is exposed to the environment and air can flow over said surface area to dissipate heat from said at least one terminal.
2. A connector as defined in claim 1, wherein at least one of said terminals is positioned within a respective first slot portion and second slot portion.
3. A connector as defined in claim 1, wherein each said terminal includes a terminal base wall, a first terminal portion extending from said terminal base wall and a second terminal portion extending from said terminal base wall in the same direction, said first and second terminal portions being positioned within a respective first slot portion, respective ones of said terminal base walls being positioned within a respective second slot portion.
4. A connector as defined in claim 3, wherein said housing further includes a housing central wall provided between said first and second housing base walls such that a first aperture is provided between said housing central wall and said first housing base wall and a second aperture is provided between said housing central

wall and second housing base wall, said first terminal portion being positioned within a respective first aperture and said second terminal portion being positioned within a respective second aperture.

5. A connector as defined in claim 4, wherein each said terminal further includes means for connecting said terminal to an associated printed circuit board, said second terminal means extending beyond ends of said second rib portions.

6. A connector as defined in claim 4, wherein each said terminal further includes means for connecting said terminal to said housing.

7. A connector as defined in claim 4, wherein each said terminal further includes an enlarged head on said first terminal portion and an enlarged head on said second terminal portion.

8. A connector as defined in claim 4, wherein said first aperture is wider than a width of said first terminal portion such that air can flow through said aperture, and wherein said second aperture is wider than a width of said second terminal portion such that air can flow through said aperture.

9. A connector as defined in claim 8, wherein two terminals are provided between adjacent ribs and said first aperture is wider than a width of said two terminals such that air can flow through said aperture, and wherein said second aperture is wider than a width of said two terminals such that air can flow through said aperture.

10. A connector as defined in claim 1, wherein said housing includes a central wall and said first housing base wall and said second housing base wall are connected to said housing central wall, said first housing base wall, said housing central wall and said second housing base wall being spaced apart from each other such that a first aperture is provided between said housing central wall and said first housing base wall and a second aperture is provided between said housing central wall and second housing base wall,

said at least one terminal being positioned within said apertures such that an additional surface area of each said terminal is exposed to the environment and air can flow over said surface area to dissipate heat from said at least one terminal.

11. A connector as defined in claim 10, wherein two terminals are provided between adjacent ribs.

12. A connector as defined in claim 10, wherein each said terminal includes a terminal base wall, a first terminal portion extending from said terminal base wall and a second terminal portion extending from said terminal base wall in the same direction, said first terminal portion being positioned within said first aperture and a respective slot, said second terminal portion being positioned within said second aperture and a respective slot, said terminal base walls being positioned within a respective slot.

13. A connector as defined in claim 12, wherein said first aperture is wider than a width of said first terminal portion such that air can flow through said aperture, and wherein said second aperture is wider than a width of said second terminal portion such that air can flow through said aperture.

14. A connector as defined in claim 12, wherein two terminals are provided between adjacent ribs.

15. A connector as defined in claim 1, wherein two terminals are provided between adjacent ribs.

16. A connector as defined in claim 15, wherein said two terminals provided between adjacent ribs have the same polarity.